The Laboratory Response Network for Bioterrorism (LRN)

Objectives:

Upon completion of this program, the learner will be able to:

- Participate in the LRN
- Describe critical aspects of lab preparedness, surveillance, and response for bioterrorism.
- Explain how clinical laboratories can access State and Local Public Health Labs.
- Access resources and training about control of bioterroism

Introduction

Participants should be able to:

- **Name the Director of the State Public Health Laboratory in their states**
- **Access Emergency Contact Information:**
  - **during regular hours**
  - **outside of regular hours**

Why is the Public Health Laboratory (PHL) Involved?

+ Mandate by Congress
+ Experience with Biological Agents of Concern and Outbreak Investigations
+ Link between Local Laboratory Level and CDC/Federal agencies

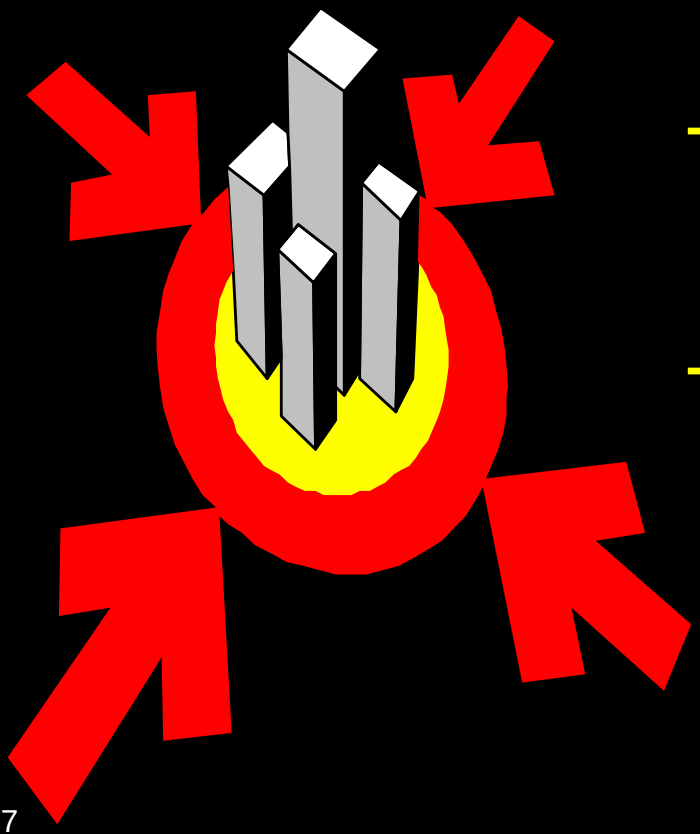
Roles of the PHL:

- Disease Identification, and Outbreak Investigation
- Reference Services
- Specialized Testing
- Direct Services
- Environmental Testing

Roles of the PHL:

- Rapid Testing
- Laboratory Improvement
- Applied Research
- Support of Surveillance and Epidemiology Investigations
- **Emergency Preparedness and Response**

Types of Bioterrorist (BT) Events



+ ANNOUNCED (Overt)
+ UNANNOUNCED (Covert)

Characteristics of BT Events

+ Increasing Frequency of Cases
+ Rare or Non-endemic Disease
+ Trouble Identifying Cause of Symptoms

Scenarios

- **Overt Event**
  - Announced
  - Patients Fall ill or Die (Increased Morbidity and Mortality)
  - Microorganisms Unconfirmed
  - Hoaxes Assumed to be Real

Scenarios

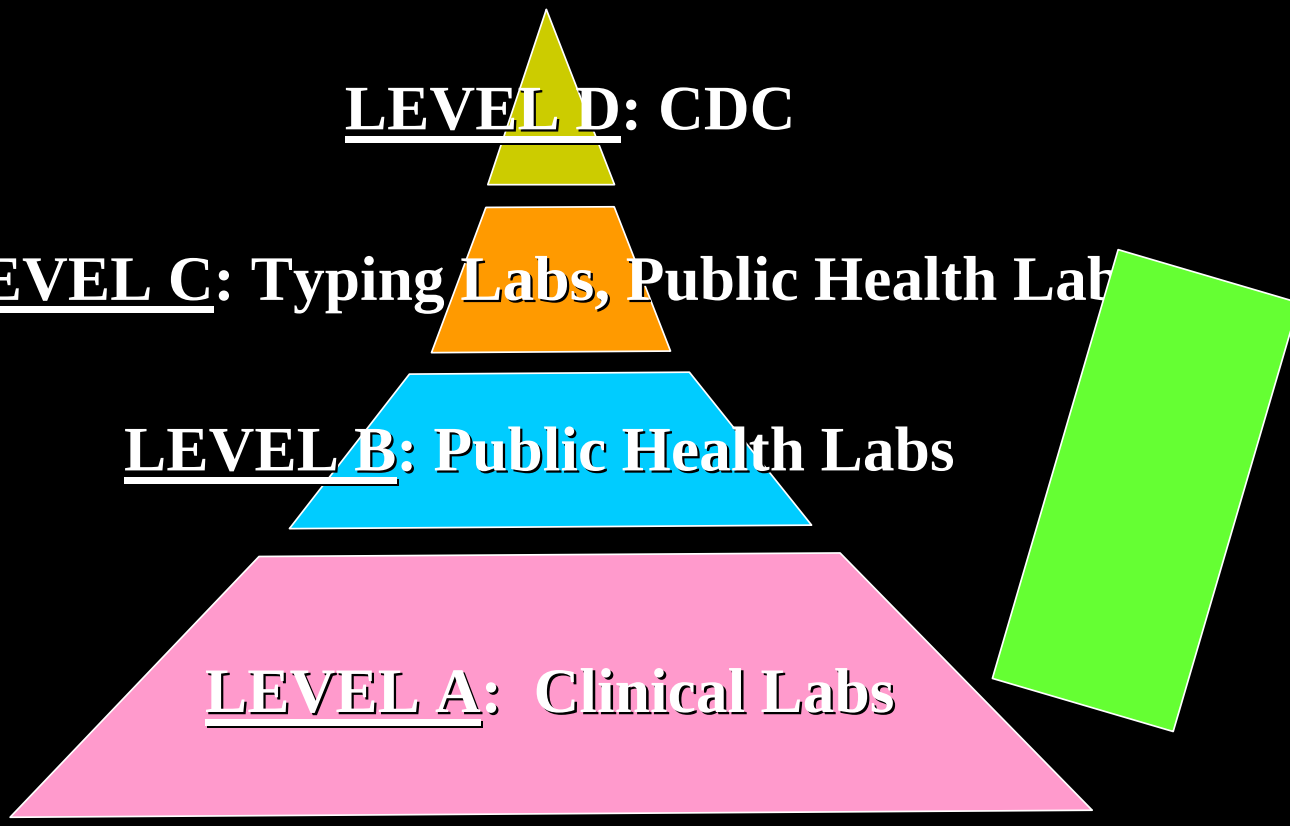
+ **Covert Event**
  - No Prior Warning - Unannounced
  - Patients Fall ill or Die from Causes of Unknown or Unusual Origin
  - Unusual Cluster(s) of Cases - May be Geographically Distributed
  - Undetermined Causative Agent

Local BT Events

The Laboratory Response Network for BT

- Public and Private Labs
- Test According to Consensus Protocols
- Timely and Accurate Testing and Reporting
- Linked with Local, State, and Federal Agencies

LRN Laboratory Levels



LRN Safety & Proficiency Adequate to...

Level D Labs- Work at BSL-4

Archive. Perform high level characterization Probe for universe of agents.

Level C Labs - Work at BSL-3

Rapid identification. **Rule-in** and **Refer**.

Level B Labs - BSL-3 Recommended

Perform susceptibility testing. Isolate. Identify. **Rule-in** and **Refer**

Level A Labs - Assess Risks for Aerosols - Use BSL-2

Detect early (presumptive cases). **Rule-out** or **Refer.**

Tasks by Capacity

+ BT Level A - Rule-out or Refer
+ BT Level B - Rule-In and Refer
+ BT Level C - Rule-in and Refer
+ BT Level D - Confirm, Validate, Archive

Questions to Answer to Create Your Plan

- What is the BT level of my lab?
- Is my lab active in the LRN?
- Where is the nearest higher level lab?
- What guidelines should be followed to package and ship biological agents?
- Whom should I call?

Have a Plan: Level A Labs

+ If announced:
  - Notify the FBI, and the PHL.
  - Based on consultation, test &/or refer.
+ If unannounced (but suspected):
  - rule-out.
  - If unable to rule- out, call the nearest Level B lab.

Have a Plan: Level A Labs

- Be aware.
- Have a plan, test your plan, and keep it updated.
- Provide training/in-service to your staff.
- Know whom to call.
- Know chain of custody requirements.
- Know shipping requirements.

Action Items

- Review your current protocols and safety practices.
- Incorporate BT plan into your SOP.
- Keep updated.
  - Additional agent protocols.
  - Additional training opportunities (NLTN, professional societies, etc.)

Conclusion

- The use of a biological agent for terrorism is a low probability event with very large, potentially devastating consequences.
- Be prepared.